Motor Vehicle and Firearm-Related Deaths

■ Motor vehicle traffic-related injuries and firearm-related injuries are the two leading causes of death among adolescents 10–19 years of age.

■ For the period 1996–97, motor vehicle traffic injuries were the leading cause of injury death for adolescents 10–19 years of age (averaging 6,260 deaths per year), followed by injuries from firearms (averaging 4,250 per year). Together these two causes accounted for 55 percent of all deaths and for 75 percent of all injury deaths for adolescents. By comparison, malignant neoplasms, the leading natural cause of death for this age group, accounted for 6 percent of all deaths.

■ For motor vehicle traffic injury deaths, rates increased markedly with age for male and female adolescents. Notably, between ages 15 and 16 years the rates for males and females doubled. A similar increase at these ages was noted in the emergency department visit rates for motor vehicle traffic-related injuries. (Figure 10). Motor vehicle death rates for males 10–17 years were 1.3–1.7 times those for females; by ages 18 and 19 years, the death rates for males were 2.1–2.5 times those for females.

■ Disparities by race and ethnicity were apparent in the rates of death from motor vehicle injuries for male and female adolescents, although the differences for males were more pronounced. Among males and females motor vehicle injury rates were highest among American Indian or Alaska Native adolescents and lowest among Asian or Pacific Islander adolescents. Rates among non-Hispanic white teens were higher than those of non-Hispanic black and Hispanic teens.

■ The high rates of death from motor vehicle injuries are partially attributable to risk behavior among adolescents. In 1999, 33 percent of high school students reported that in the previous 30 days they rode in a car with a driver who had been drinking alcohol, and 13 percent reported that they drove after drinking alcohol (1). Sixteen percent of students surveyed had rarely or never worn seat belts when riding in a car or truck driven by someone else. Overall, male students (21 percent) were significantly more likely than female students (12 percent) to have rarely or never worn seat belts (1).

■ Healthy People 2010 has identified reduction of deaths caused by motor vehicle crashes and the reduction of deaths and injuries caused by alcohol- and drug- related motor vehicle crashes as critical adolescent objectives (2). The objectives also call for increased use of safety belts and a reduction in the proportion of adolescents who report that they rode, during the previous 30 days, with a driver who had been drinking alcohol.

■ Firearm death rates also increase substantially with age; the rate for males 19 years of age was 28 times the rate for those 11 years of age. In contrast, the firearm death rates for 19 year old females was 10 times the rate for 11 year old females. The disparity between male and female firearm-related death rates increased from threefold for the youngest adolescents (10–11) to ninefold for older adolescents (18–19 years).

■ Differences exist in firearm-related death rates by race and ethnicity for male and female adolescents. Rates were strikingly higher among black adolescents than among other race and ethnic groups. Firearm death rates were lowest among non-Hispanic white and Asian or Pacific Islander adolescents.

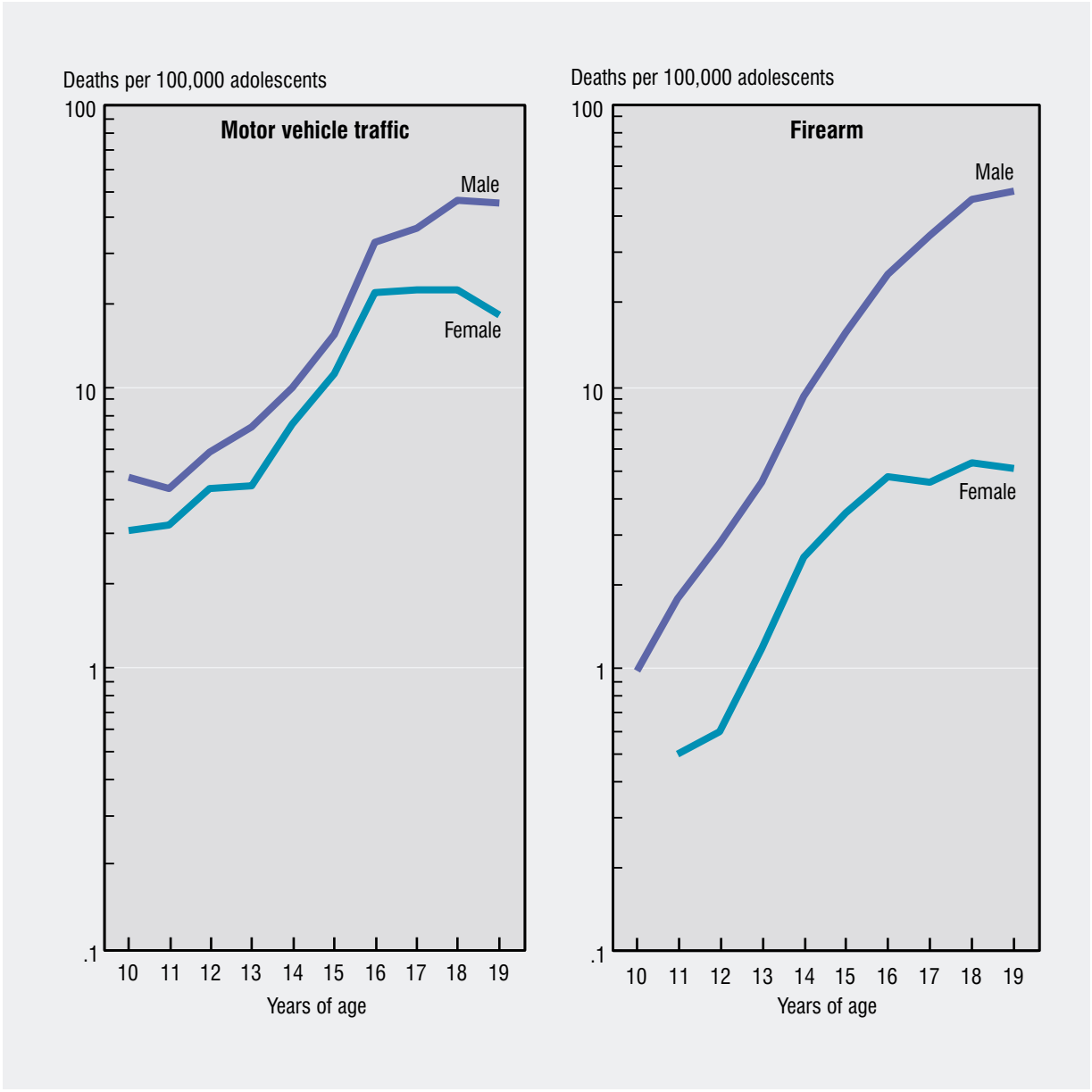
■ Firearm deaths include deaths that were classified as unintentional, suicide, homicide, legal intervention, or undetermined intent. Among adolescents 10–19 years of age, 60 percent of all firearm deaths were homicides, 31 percent were suicides, 6 percent were unintentional and 2 percent were of undetermined intent.

References

1. Centers for Disease Control and Prevention. Youth Risk Behavior Survey. 1999.

2. U.S. Department of Health and Human Services. Healthy People 2010 (Conference Edition, in Two Volumes). Washington: January 2000.

Figure 17. Death rates for motor vehicle traffic-related and firearm-related injuries among adolescents 10–19 years of age, by age and sex: United States, average annual 1996–97



NOTES: The firearm death rate for females 10 years of age is unreliable and is not shown. Death rates are graphed on a log scale to clearly illustrate how rates change across the entire age span 10–19 years. See Technical Notes for discussion of cause of death coding. See also Appendix II, Cause of Death. See Data Table for data points graphed.

SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System. See related *Health, United States, 2000*, tables 45 and 48.